

The purpose of this file is to play around with how dictionaries work in Python and how we can move between dictionaries and Pandas data frames.

## 1. Making Dictionaries from Scartch with a For Loop

```
In [1]: katie_nums = {}  
key = ['food', 'color', 'age']  
values = ['spaghetti', 'red', '34']  
for i in range(len(key)):  
    katie_nums[i] = values[i]
```

```
In [2]: katie_nums
```

```
Out[2]: {0: 'spaghetti', 1: 'red', 2: '34'}
```

```
In [3]: katie_strings = {}  
key = ['food', 'color', 'age']  
values = ['spaghetti', 'red', '34']  
for i in range(len(key)):  
    katie_strings[key[i]] = values[i]  
#we get interger value for i to help with the loop, and use that to get the str
```

```
In [4]: katie_strings
```

```
Out[4]: {'food': 'spaghetti', 'color': 'red', 'age': '34'}
```

```
In [5]: katie_string_dimensions = {}  
key = ['food', 'color', 'age']  
values = [['spaghetti', 'sushi'], ['red', 'blue'], ['34', '32']]  
for i in range(len(key)):  
    katie_string_dimensions[key[i]] = values[i]
```

```
In [6]: katie_string_dimensions
```

```
Out[6]: {'food': ['spaghetti', 'sushi'], 'color': ['red', 'blue'], 'age': ['34', '32']}
```

## 2. Moving between our dictionaries and Pandas data frames.

```
In [7]: #let's make this into a pandas data frame  
import pandas as pd  
ksd = pd.DataFrame.from_dict(katie_string_dimensions)
```

```
In [8]: ksd
```

```
Out[8]:
```

	food	color	age
0	spaghetti	red	34
1	sushi	blue	32

```
In [9]: #let's go back to a dictionary  
ksd_dict = ksd.to_dict()
```

```
In [10]: ksd_dict  
#you can see it has some indexes now, pandas style  
Out[10]: {'food': {0: 'spaghetti', 1: 'sushi'},  
          'color': {0: 'red', 1: 'blue'},  
          'age': {0: '34', 1: '32'}}
```

```
In [11]: #let's see how it changes stuff  
print(katie_string_dimensions['food'])  
['spaghetti', 'sushi']
```

```
In [12]: print(ksd_dict['food'])  
{0: 'spaghetti', 1: 'sushi'}
```

```
In [13]: #let's see if what happens when we drill down one level  
print(katie_string_dimensions['food'][0])  
spaghetti
```

```
In [14]: print(ksd_dict['food'][0])  
spaghetti
```

```
In [15]: #looks nice....I kind of like the way pandas gives us this useful row index number
```